

## 5.15 Transportation/Traffic

This section examines whether Project implementation will have significant impacts on transportation facilities and traffic conditions in the Planning Area. The information presented in this section is summarized from the *Circulation Element EIR Transportation Study* prepared by Meyer, Mohaddes Associates, Inc. (July 2004) and provided in **Appendix H** of this EIR.

This analysis focuses on traffic impacts associated with adoption and implementation of the proposed General Plan, adoption and implementation of the Zoning Code and Subdivision Code, and adoption and implementation of the Magnolia Avenue Specific Plan, as these actions have the potential to affect traffic volumes and the City's transportation network. The Citywide Design Guidelines and Sign Guidelines only address site planning, building design, and community aesthetics and thus are not considered relevant in the analysis of traffic impacts.

### Environmental Setting

The Planning Area is served by the existing network of local and regional roadways shown in **Figure 5-32**. Several freeways pass through and near the City of Riverside: SR-91, a major east-west inter-regional facility that runs from the beach cities in Los Angeles County and ends at SR-60 to the east; SR-60, another east-west facility that terminates near downtown Los Angeles and is generally located north of SR-91 and is concurrent with I-215 for approximately 5 miles east of the City of Riverside; and I-215, a north-south interstate that provides access to I-15 in San Bernardino on the north and ties to I-15 south of the City near Murrieta. Existing traffic volumes on freeway sections passing through the Planning Area range from 104,000 to 188,000 vehicles per day (vpd) on I-215/SR-60 and 160,000 to 180,000 vpd on SR-91.

The City of Riverside's local street system consists of arterials, collector, and local streets. The existing functional classification system is shown in **Figure 5-32**. Key arterials include Van Buren Boulevard, Arlington Avenue, Trautwein Road, Magnolia Avenue, Market Street, Iowa Avenue, Central Avenue, and Alessandro Boulevard.

#### Level of Service

Level of Service (LOS) is a qualitative measure used to describe the efficiency of traffic flow. LOS describes the way traffic conditions are perceived by individuals. LOS measurements also describe variables such as speed and travel time, freedom to maneuver, traffic interruptions, traveler comfort and convenience, and safety. Measurements range from LOS "A" (representing free flow and excellent comfort for the motorist, passenger or pedestrian) to LOS "F" (reflecting highly congested traffic conditions where traffic volumes approach or exceed the capacities of streets, sidewalks, etc.). **Table 5.15-1** identifies conditions associated with each LOS descriptor. LOS is based on average vehicle delay and also on the volume-to-capacity ratio.

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**Figure 5-32**  
**Existing Roadway Functional Classifications.**  
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LOS can be determined for a number of transportation facilities including freeways, multi-lane highways, two-lane highways, signalized intersections, intersections that are not signalized, arterials, transit and pedestrian facilities. For the Riverside General Plan, intersection LOS has been measured to determine the peak period operating characteristics at several key intersections in the City, as well as along segments of the freeways that traverse the City.

**Table 5.15-1**  
**Intersection Level of Service Definitions**

LOS	Interpretation	Signalized Intersection Delay (seconds per vehicle)	Stop-Controlled Intersection Average Delay (seconds)
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	>10	>10
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized; traffic queues start to form.	>10 and >20	>10 and >15
C	Good operation. Occasionally backups may develop behind turning vehicles. Most drivers feel somewhat restricted.	>20 and >35	>15 and >25
D	Fair operation. There are no long-standing traffic queues. This level is typically associated with design practice for peak periods.	>35 and >55	>25 and >35
E	Poor operation. Some long-standing vehicular queues develop on critical approaches.	>55 and .80	>35 and >50
F	Forced flow. Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movements of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop-and-go-type traffic flow.	>80	>50

**Source:** Transportation Research Board, *Highway Capacity Manual*, 2000.

### Intersection Level of Service

Intersections typically represent the most critical locations of bottlenecks and congestion since a right-of-way must be shared by opposing traffic. The City has generally adopted LOS "D" as the minimum threshold goal for a system-wide level of service on arterials and collectors.<sup>1</sup> The minimum LOS "D" objective reflects the City's desire to maintain stable traffic flow throughout the City, recognizing that peak-hour congestion may occur at locations near freeways or other locations with unusual traffic characteristics due to regional traffic flow.

<sup>1</sup> The existing General Plan allows LOS E to serve as "a minimum acceptable standard for transportation planning and facility design." The existing General Plan also allows LOS F to "continue to exist in some circumstances" (Policy T 1.2, City of Riverside General Plan, 1994).

Intersection traffic volume counts were conducted in 2003 to identify intersection traffic flow at 15 key intersections in the City of Riverside. **Figure 5-33** identifies the intersections that were analyzed to determine the peak operating conditions and indicates peak hour level of services conditions for each.

Each study intersection was then reviewed in the field to determine the geometric characteristics, including number of lanes on each intersection approach by type (through lanes, left turn lanes, right turn lanes and shared lanes), type of traffic control and other relevant information. The roadway characteristics and traffic volume data were then used to estimate existing A.M. and P.M. peak-hour operating conditions.

Using the Highway Capacity Manual delay-based methodology, the service level at each intersection was estimated. **Table 5.15-2** identifies the current intersection LOS at each study intersection. All intersections that were analyzed currently operate at LOS "D" or better, indicating generally acceptable conditions. These data are shown graphically in Figure 5-33 above.

**Table 5.15-2**  
**Existing A.M./P.M. ICU and LOS Summary**

Intersection	A.M.			P.M.		
	LOS	Delay (sec)	V/C	LOS	Delay (sec)	V/C
Alessandro/Arlington-Chicago	C	26.8	0.785	D	41.6	0.990
Alessandro/Trautwein	C	23.9	0.794	B	13.8	0.614
Arlington/La Sierra	B	20.0	0.345	C	20.8	0.504
Canyon Crest/Central	C	26.5	0.748	C	29.0	0.675
Magnolia/Arlington	C	27.5	0.555	C	30.3	0.694
Magnolia/Central-Brockton	D	39.5	0.990	D	43.7	1.070
Magnolia/Tyler	C	20.1	0.287	C	27.1	0.498
Market/University	C	23.9	0.423	C	24.8	0.566
Martin Luther King/Canyon Crest	C	22.1	0.607	C	24.7	0.771
Martin Luther King/Chicago	C	28.4	0.786	C	27.3	0.620
Van Buren/Arlington	D	41.7	0.942	D	47.3	1.036
Van Buren/Indiana	C	25.4	0.639	C	25.7	0.602
Van Buren/Magnolia	C	27.0	0.548	C	29.5	0.702
Van Buren/Orange Terrace	C	30.7	0.619	A	7.9	0.334
Van Buren/Trautwein	C	28.9	0.671	C	23.7	0.574

Source: Meyer, Mohaddes Associates, Inc., 2004.

### **Magnolia/Central/Brockton Intersection**

The Magnolia/Central/Brockton intersection is sometimes referred to as the "flytrap" due to its unique configuration and often congested operating conditions. Brockton Avenue is a two-way roadway north of Central Avenue and it intersects with Central Avenue immediately west of Magnolia Avenue, effectively forming a complex five-legged intersection. Under the current configuration, complex signal timing and a long signal phase length is required to clear traffic from the five legs of the intersection safely, which reduces the available green signal time for the heaviest traffic flows. Signal phase timing is currently dedicated to clearing traffic through the Brockton Avenue portion of the intersection. Although Table 5.15-2 above shows LOS D conditions for this intersection during morning

Figure 5-33  
**Study Intersections and Peak Hour Level of Service**  
**8.5 x 11**

and afternoon peak hour conditions, the model does not fully account for the short distance between lights at this intersection.

### Roadway Level of Service

The proposed General Plan utilizes a measurement of peak hour level of service to determine a Project's traffic impacts. Traffic levels can also be measured along roadway linkages by comparing a roadway's measured traffic volume against its capacity. A roadway's capacity is most significantly determined by its width and number of lanes, but other factors, including speed limits and traffic control measures are also relevant.

Although such measurement methodology has not been officially adopted by the City, it is useful for environmental impact evaluation. Table 5.15-3 indicates how LOS measurements can be applied to roadway linkages.

**Table 5.15-3**  
**Roadway Linkage Level of Service**

<b>LOS</b>	<b>Description of Operation</b>	<b>Range of V/C Ratios</b>
<b>A</b>	Describes primarily free-flow conditions at average travel speeds. Vehicles are seldom impeded in their ability to maneuver in the traffic stream. Delays at intersections are minimal.	<b>0.00 - 0.60</b>
<b>B</b>	Represents reasonably unimpeded operations at average travel speeds. The ability to maneuver in the traffic stream is slightly restricted and delays are not bothersome	<b>0.61 - 0.70</b>
<b>C</b>	Represents stable operations, however, ability to change lanes and maneuver may be more restricted than LOS B and longer queues are experienced at intersections.	<b>0.71 - 0.80</b>
<b>D</b>	Congestion occurs and a small change in volumes increases delays substantially.	<b>0.81 - 0.90</b>
<b>E</b>	Severe congestion occurs with extensive delays and low travel speeds occur.	<b>0.91 - 1.00</b>
<b>F</b>	Characterizes arterial flow at extremely low speeds and intersection congestion occurs with high delays and extensive queuing.	<b>&gt; 1.00</b>

Traffic flow was measured and analyzed both on a daily basis and during peak hours of traffic flow (commute peak hours). On a daily basis, traffic flow was measured on roadways at mid-block locations to determine the overall level of travel demand and level of service. Average Daily Traffic (ADT) values have been developed that represent the typical daily traffic flow on each key roadway in the City. **Figure 5-34** illustrates the roadway traffic volumes in 2003 (the baseline year for this analysis). The highest traffic volume locations are:

- **Van Buren Blvd** north of Arlington Ave 49,900 to 56,500 vpd
- **Alessandro Blvd** between Chicago Ave and Trautwein Rd 42,100 to 46,400 vpd
- **Van Buren Blvd** west of Wood Rd 42,100 vpd
- **Tyler St** between Magnolia Ave and Indiana Ave 40,900 vpd
- **Arlington Ave** between Victoria Ave and Alessandro Blvd 37,200 vpd
- **Van Buren Blvd** between Magnolia Ave and Indiana Ave 37,100 vpd



**Figure 5-34**  
**2003 Daily Traffic Volumes**  
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Roadway level of service estimates were computed by comparing existing roadway capacities to average daily traffic volume. **Figure 5-35** (Arterial Level of Service (2003)) shows existing conditions on the City of Riverside's network of local streets. As shown in this figure, the only roadway linkage operating at LOS "E" or below is the portion of Van Buren Boulevard between Jurupa Avenue and Central Avenue. All other roadway segments are operating at LOS "D" or better.

## Freeways

The freeways traversing and near the Planning Area are major regional routes for both personal and commercial traffic. The Riverside Freeway (SR 91) provides the primary linkage between Riverside County and Orange/Los Angeles counties. The Escondido (I-215) freeway) and the Corona/Ontario Freeway (I-15) are the only major routes connecting the Inland Empire region with San Diego County; both experience significant congestion during commute hours. The interchange of the 91, 215 and 60 freeways near Downtown is a major link in the entire Southern California roadway transportation system. A major reconstruction of this interchange commenced in 2004, with the aim of providing smoother transitions between the different freeway facilities. All freeways within the Planning Area are operated and administered by the California Department of Transportation (Caltrans). The City of Riverside has no authority to control or limit usage of these regional freeways.

Under 2004 conditions, nearly all segments of freeways within the Planning Area are operating at LOS F, with only some portions of the I-215 operating at or better than LOS D. **Table 5.15-4** below identifies LOS for freeway segments throughout the Planning Area. LOS F freeway conditions in the Planning Area indicate that freeway demand exceeds capacity. These oversubscribed conditions have the potential to contribute to increased traffic on local streets, as freeway on-ramps back up onto local streets and local arterials become attractive alternative routes. Van Buren Boulevard and Alessandro Boulevard in particular are estimated to be used by many through-drivers seeking to avoid congestion at the 91/215/60 interchange.

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**Figure 5-35**  
**Arterial Level of Service (2003)**  
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**Table 5.15-4  
Existing Freeway Segment Volumes and Level of Service**

<b>Freeway Segment</b>	<b>Average Daily Traffic</b>	<b>Existing Peak Hour Volume</b>	<b>Existing LOS</b>
<b>State Route 91</b>			
Pierce St to Magnolia Ave	176,000	14,700	F
Magnolia Ave to La Sierra Ave	178,000	14,900	F
La Sierra Ave to Tyler St	178,000	14,900	F
Tyler St to Van Buren Blvd	180,000	15,100	F
Van Buren Blvd to Adams St	174,000	14,600	F
Adams St to Madison St	176,000	14,700	F
Madison St to Arlington Ave	176,000	14,300	F
Arlington Ave to Central Ave	177,000	14,200	F
Central Ave to 14th St	172,000	13,600	F
14th St to University Ave	171,000	13,400	F
University Ave to Mulberry St	162,000	12,600	F
Mulberry St to La Cadena Dr	162,000	12,400	F
La Cadena Dr to SR-60	160,000	12,400	E
<b>Interstate 215/State Route 60</b>			
SR-60 to Spruce St	183,000	15,600	F
Spruce St to 3rd St/Blaine St	171,000	14,700	F
3rd St/Blaine St to University Ave	170,000	14,800	F
University Ave to Martin Luther King Blvd	177,000	15,400	F
Martin Luther King Blvd to El Cerrito Dr	181,000	16,300	F
El Cerrito Dr to Central Ave	188,000	16,900	F
Central Ave to Box Springs Rd	180,000	16,200	F
Box Springs Rd to SR-60	110,000	8,900	C
SR-60 to Eastridge Ave	112,000	9,000	E
Eastridge Ave to Alessandro Blvd	106,000	9,000	E
Alessandro Blvd to Frontage Rd	104,000	8,900	D
Frontage Rd to Van Buren Blvd	105,000	9,000	D

\*Based on County of Riverside General Plan With LOS F at 117,500 vpd for 6-lane freeway, and LOS F at 160,500 for an 8-lane freeway

Source: Meyer Mohaddes Associates, July 2004

### Neighborhood Traffic Management

As traffic volumes and congestion have increased on the major regional roadways, drivers looking to reduce their travel times begin to look at alternative routes using the local street system to avoid problem areas. This neighborhood intrusion by “cut-through” traffic has become a growing concern for some residential areas.

The City of Riverside has an active Neighborhood Traffic Management Program to minimize and/or prevent intrusion of regional cut-through traffic into residential neighborhoods through traffic management and traffic calming strategies; and to improve the livability of neighborhoods through controlling the impacts of outside traffic. The strategies include speed control methods, parking restrictions, speed humps, pedestrian safety improvements

and sight obstruction elimination. The community is actively involved in requesting calming measures, and in some cases, helps the City in the costs of the improvements.

### Regional Transportation Plans

Several regional and subregional transportation plans and programs apply to the City of Riverside. They include the Riverside County Congestion Management Program (CMP), the Southern California Association of Governments Comprehensive Transportation Plan (SCAG/CTP), the Regional Transportation Improvement Program (RTIP), the Regional Transportation Plan and the Riverside County Community and Environmental Transportation Acceptability process (CETAP) plan. In addition to the above transportation planning programs, the Transportation Uniform Mitigation Fee (TUMF) is a funding source for transportation improvements for participating cities in western Riverside County.

**Figure 5-36** identifies facilities designated as CMP roadways within the Planning Area. Regional management of these facilities helps ensure compliance with State requirements to reduce traffic impacts that worsen congestion and air quality.

### Air Traffic

Riverside Municipal Airport is an integral part of the local and regional air transportation system, providing private aviation services to the City of Riverside and the surrounding area. The airport is situated on 441 acres in the northwest portion of the City of Riverside, bordered by Arlington Avenue to the south, Hillside Avenue to the east, and Van Buren Boulevard to the west. The airport is owned and operated by the City, with its operations overseen by the City of Riverside Airport Commission. As of 2003, annual operations totaled about 110,000 flights, about evenly split between local and itinerant travel. According to a 1999 Master Plan for the Airport, annual operations peaked in 1991 (more than 200,000 annual operations) and hit a low of about 73,000 operations in 1997.

The other significant air facility that impacts the planning area is the approximately 6,500-acre March Air Reserve Base/March Inland Port (MARB/MIP). Located to the City's southeast (outside of the Planning Area), between the cities of Riverside and Moreno Valley, MARB/MIP had earlier served as a United States Air Force base, where activities began in 1918. The Department of Defense realigned the base as an air reserve base in 1996. A Joint Powers Authority (JPA), of which the City of Riverside is a part, administers operations on the base. In addition to the air reserve activities, the JPA's long-range plan calls for the base to serve as an inland port, accommodating cargo in transfers between ground and air shipping. According to SCAG Regional Transportation Plan projections, in 2003 passenger service at MARB/MIP will reach 8.0 million annual passengers and approximately 12.8 percent of all regional air cargo tonnage will flow through the airport.

Flabob Airport, located just northwest of the City of Riverside across the Santa Ana River, features a 3,200-foot runway; the facility primarily supports private recreational and business air travel. Although located in the unincorporated Riverside County community of Rubidoux and outside of the Planning Area, Flabob operations impact the northern part of the City, particularly with regard to noise and air safety concerns.



Figure 5-36  
CMP Roadways 8.5 x 11

## Roadway Hazards

Commuter rail and freight transit by rail creates safety concerns at roadway-rail grade crossings and along the rights-of-way. The 27 mainline at-grade railroad crossings in the City of Riverside pose concerns related to safety reasons in addition to localized traffic congestion. In the United States as a whole, statistics show that a train accident involving death, personal injury, or property damage occurs every two hours. With its extensive network of freight trains and the growing popularity of commuter rail operations, Southern California incurs train-related incidents at a disproportionately high rate. Between 2001 through 2003 in the City of Riverside, 25 unsafe incidents occurred on the train tracks.<sup>2</sup>

Given the City's size and the wide dispersal of residential, employment and commercial services, walking and bicycling have not been significant modes of transportation within the City of Riverside, despite the relatively flat terrain of urbanized areas and temperate weather conditions. A lack of adequate pedestrian and bicycle facilities in portions of the Planning Area constitute an impediment to wider use of automobile alternatives. In addition, vehicles on roadways are seen to threaten pedestrian safety in the vicinity of sensitive land uses, including schools, churches, community centers and parks. Of particular concern in the City of Riverside are the safety hazards posed by vehicles to school-aged children and other residents during the peak drop-off and pick-up hours at schools.

## Parking Capacity

Parking is tightest within the City near activity centers, Downtown and UC Riverside. The Zoning Code (Title 19 of the Riverside Municipal Code) includes parking requirements to ensure that adequate parking is provided on-site for most uses. The Code also establishes minimum stall dimensions consistent with current standards for other jurisdictions.

## Emergency Access

The City has adopted the 2000 Uniform Fire Code as amended by the California State Fire Marshal. The code, codified in Section 16.32.020 of the Riverside Municipal Code, establishes site planning and design standards to ensure adequate emergency access to new developments. In addition, as new development is proposed, the City reviews the project to ensure that adequate parking is provided off-street and emergency access lanes are not blocked.

## Alternative Transportation

### Transit Service

The City is served by bus and rail services. Bus service within the City and to outlying areas is provided by the Riverside Transit Agency (RTA), which serves western Riverside County. RTA also offers an intercity Dial-A-Ride service for ADA-certified passengers. Routes within the City are shown on **Figure 5-37**.

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<sup>2</sup> Jensen, Chris, Planning Division Chief, City of Riverside Fire Department, personal communication, January 2004.

**Figure 5-37**  
**Transit Facilities**  
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RTA plans a new first-class transit center in the City of Riverside. Facilities will incorporate digital kiosks that give passengers accurate and up-to-the-minute arrival information. RTA also recently implemented a Bus Rapid Transit (BRT) demonstration project in Riverside County. BRT is a system of fast-moving, high-occupancy buses that utilize the latest in technology for clean, efficient express bus service. In concept, BRT would provide several buses operating just minutes apart with limited stops.

Metrolink commuter rail service consists of heavy rail lines into downtown Los Angeles and Orange County. Metrolink is operated by the Southern California Regional Rail Authority. Lines serving downtown Los Angeles are Metrolink 91 and the Riverside Line. Service to Orange County is via the Inland Empire-Orange County line. All lines stop at the two Metrolink stations in the City of Riverside: one just east of Downtown and one in La Sierra.<sup>3</sup> As of 2004, the Riverside County Transportation Commission (RCTC) and Metrolink were cooperatively planning the development of a new Perris Valley Line, a 22.7-mile extension of the Metrolink 91 line. Longer-term plans for the railway call for extensions eastward to the City of Hemet. As of 2004, the precise alignment of the Perris Valley line had not been determined.

In addition to Metrolink, the California High Speed Rail Authority proposes a high-speed train (HST) system for intercity travel in California between the major metropolitan centers of Sacramento and the San Francisco Bay Area in the north, through the Central Valley, to Los Angeles, Riverside and San Diego in the south. The HST would carry passengers at speeds in excess of 200 mph on a fully grade-separated track, with state-of-the-art safety, signaling and automated control systems. As of 2004, neither funding nor final alignments for this project had been determined.

### **Non-Motorized Transportation**

A comprehensive network of pedestrian and bicycle trails traverse the Riverside Planning Area, linking residential areas, schools, parks and commercial. The City's Bicycle Master Plan (Figure CCM-6 in the General Plan) designates a series of Class I and Class II bicycle facilities throughout the City.

## **Thresholds for Determining Level of Impact**

For the purposes of this EIR, a significant impact will occur if Project implementation will:

- Cause an increase in traffic which would result in an intersection being forecast to operate at LOS "E" or worse, unless such intersection is identified in the General Plan as a location where LOS "E" is acceptable.
- Cause an increase in traffic which would result in a roadway segment being forecast to operate at LOS "E" or worse, unless such segment is identified in the General Plan at a location where LOS "E" is acceptable.

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<sup>3</sup> [www.metrolinktrains.com](http://www.metrolinktrains.com)

- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment).
- Result in inadequate emergency access.
- Result in inadequate parking capacity.
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)

## Methodology

A computer traffic model based on the regional model of the Southern California Association of Governments (SCAG) was used to estimate the future intersection and roadway segment levels of service within the Planning Area upon full implementation of proposed General Plan land use policy. (In the following discussion of traffic impacts, the analysis focuses on General Plan land use policy; since the Zoning Code will implement that policy, the impacts are considered to result from long-term implementation of General Plan policy.) Future traffic conditions in the City resulting from full implementation of land use policy were determined first by applying the trip generation rates for land uses based on data developed by the Institute of Transportation Engineers (ITE) and other sources. These trip generation rates were then used to estimate the number of trips to and from various types of land uses in a day.

The City of Riverside and Riverside County use a similar methodology to assess traffic conditions. Both the City and the County determine the existing LOS segments/links along the street and highway network. Although the County uses a different nomenclature system for the functional classifications, the general roadway types are similar. In this analysis, the City has analyzed selected intersections and segments. Since the proposed General Plan will apply to the sphere of influence areas upon annexation of these areas into the City, only City standards will be relevant when considering criteria for the determination of a potentially significant traffic impact. Thus, the City's thresholds will be applied to the SOI areas while the County standards would no longer be applicable.

## Environmental Impacts

Development pursuant to Project policies and regulatory standards will at full implementation of land use policy result in the addition of up to about 38,100 dwelling units and 39,600,000 square feet of non-residential development. This development increase will increase demand upon the City's transportation network. Discussion within the following paragraphs analyzes

the impact of this development increase upon the following transportation facilities and issue areas:

- Intersections
- Roadway Linkages
- Freeways
- Regional transportation plans
- Air Traffic
- Roadway Hazards
- Parking Capacity
- Emergency Access
- Alternative Transportation

### Overall Impacts

Based on the application of ITE trip generation rates to existing land uses in the City and sphere area, it was determined that approximately 1.69 million trips per day are presently generated within the Planning Area. At full implementation of land use policy and the Magnolia Avenue Specific Plan, trips in the Planning Area are expected to increase to 2.53 million per day, representing 0.84 million additional trips per day.

It should be noted that the number of vehicle trips within the City of Riverside and the region would be expected to increase substantially under current General Plan conditions, as development within the Planning Area has not reached a stage of buildout pursuant to existing land use policy. The Southern California Association of Governments (SCAG) anticipates strong population growth within the City of Riverside by 2025. SCAG projects that the City's population will grow by about 100,000 people by 2025, an almost 40% increase over 2004 levels. SCAG's current projections do not assume implementation of the Project.

### Intersection Impacts

As noted in Table 5.15-2, no intersections presently operate below an acceptable level of service. The results of the traffic model were used to project future intersection levels of service reflecting buildout of the proposed General Plan (year 2025). The same 15 intersections for which existing conditions were analyzed in Table 5.15-2 were analyzed under anticipated future conditions. **Table 5.15-5** identifies anticipated service levels at the study intersections during the A.M. peak hour and P.M. peak hour and indicates which intersections are anticipated to operate at LOS "E" or "F" in the future absent any mitigation. (Unacceptable intersections are shown in bold italic text.) **Figure 5-38** (2025 Intersection Peak Hour Conditions) depicts these results on a map.

By comparing existing intersection conditions with the projected future intersection conditions, it can be seen that all intersections currently operate at acceptable levels of service but 5 intersections are projected to operate at deficient levels of service at full Project implementation. This constitutes a significant adverse impact.

**Table 5.15-5**  
**Existing and Year 2025 Intersection Levels of Service**

	Existing Intersection Conditions				Unmitigated Year 2025 Intersection Conditions			
	A.M.		P.M.		A.M.		P.M.	
	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
<b>Alessandro/Arlington-Chicago</b>	C	26.8	D	41.6	<b>E</b>	<b>60.7</b>	<b>F</b>	<b>88.3</b>
Alessandro/Trautwein	C	23.9	B	13.8	D	47.6	C	26.1
<b>Arlington/La Sierra</b>	B	20.0	C	20.8	C	24.5	<b>E</b>	<b>58.4</b>
<b>Canyon Crest/Central</b>	C	26.5	C	29.0	<b>E</b>	<b>63.3</b>	<b>F</b>	<b>90.8</b>
Magnolia/Arlington	C	27.5	C	30.3	C	29.5	D	43.2
Magnolia/Central-Brockton <sup>4</sup>	D	39.5	D	43.7	*	*	*	*
Magnolia/Tyler	C	20.1	C	27.1	C	22.7	C	30.8
Market/University	C	23.9	C	24.8	C	23.7	C	25.7
<b>Martin Luther King/Canyon Crest</b>	C	22.1	C	24.7	C	28.6	<b>E</b>	<b>71.5</b>
Martin Luther King/Chicago	C	28.4	C	27.3	D	36.7	D	44.7
<b>Van Buren/Arlington</b>	D	41.7	D	47.3	<b>E</b>	<b>75.4</b>	<b>E</b>	<b>65.1</b>
Van Buren/Indiana	C	25.4	C	25.7	C	24.9	C	26.4
Van Buren/Magnolia	C	27.0	C	29.5	C	29.4	D	42.8
Van Buren/Orange Terrace	C	30.7	A	7.9	B	13.8	A	8.4
Van Buren/Trautwein	C	28.9	C	23.7	D	44.0	D	46.4

Source: Meyer, Mohaddes Associates, Inc., 2004.

### Circulation Element Improvements

**Table 5.15-5** indicates that 5 intersections will operate at unacceptable levels of service at buildout. Conceptual intersection and roadway improvements provided for in the Circulation and Community Mobility Element will improve conditions in the long term. The projected LOS at these intersections with full implementation of the Circulation and Community Mobility Element are shown in **Table 5.15-6**.

As indicated in Table 5.15-6, proposed Project improvements will improve LOS to acceptable levels for each of the 5 intersections found to operate at an unacceptable LOS without mitigation. Improvement alternatives for the Magnolia/Central/Brockton intersection are separately discussed below.

Notably, conceptual intersection improvements are based on long-term forecasts of buildout conditions (year 2025) using the Citywide traffic model. The types of conceptual intersection improvements that have been investigated include the following: ITS signal system and real time monitoring system, dual left-turn lanes, exclusive right-turn lanes, right-turn overlap phases and additional through lanes beyond the numbers set forth in the Circulation and Community Mobility Element. These changes would only apply to arterial roadways.

<sup>4</sup> Discussion and analysis of potential future configurations of this intersection are presented below.



Figure 5-38  
2025 Intersection Peak Hour Conditions  
8.5x 11, color

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**Table 5.15-6**  
**Conceptual General Plan Intersection Improvement Recommendations**

Intersection	Year 2025 LOS		Concept Improvements						
			Dual Left-Turn Lanes	Add Thru Lanes	Add Right- Turn Lane	Install Traffic Signal	LOS with Improvements		Notes
	A.M.	P.M.					A.M.	P.M.	
Alessandro/Arlington-Chicago	E	F	WB	SB	EB		D	D	
Arlington/La Sierra	C	E			EB			C	
Canyon Crest/ Central	E	F	SB, WB				D	D	
Magnolia/ Central-Brockton	*	*							To be analyzed as part of the Magnolia Specific Plan
Martin Luther King/ Canyon Crest	C	E	WB					D	
Van Buren/ Arlington	E	E					D	D	Signal Modifications – WB Right Turn overlap

Source: Meyer, Mohaddes Associates, Inc., June 2004

Typically, intersections are often improved beyond the standard for mid-block locations to allow for expanded capacity and to reduce congestion. Additional lanes for through traffic or turning movements may be added to eliminate bottlenecks. In the City of Riverside, it would be necessary to expand some critical intersections in the future to provide adequate capacity. The proposed conceptual intersection improvements include items such as additional through lanes, dual left-turn lanes and right-turn lanes in each direction. Specific intersection improvements and the number of lanes will be determined on a case-by-case basis as development occurs. Each intersection improvement project will be subject to CEQA review to determine if the project has the potential to cause any significant environmental impacts.

### **Magnolia/Central/Brockton Intersection**

Conceptual improvements are assumed for all but one City intersection, the so-called “flytrap” intersection of Magnolia Avenue, Central Avenue and Brockton Avenue. The Magnolia Avenue Specific Plan sets forth two closely related improvement alternatives for this intersection. The alternatives are discussed below.

**Alternative 1:** Under this option, Brockton Avenue would be reconfigured from Beatty Drive to the south. This will simplify the operations of the intersection by making Brockton Avenue one-way southbound (no northbound movement) at Central Avenue.

South of Beatty Drive, Brockton would become one way southbound, with the exception of the portion between the two legs of Beatty Drive, where a small two-way section would remain. Traffic destined for Magnolia Avenue from southbound Brockton would access Magnolia via a reconfigured Sunnyside Drive, which would be one way eastbound and connect Brockton to Magnolia.

At the intersection of Brockton Avenue and Central Avenue, Brockton traffic would be able to turn right only to the westbound direction. The north/south crosswalk at Brockton would also be eliminated, with pedestrians crossing at Magnolia and Central marked crosswalks and pedestrian signals.

Finally, the existing small portion of Brockton Avenue located south of Central Avenue would be eliminated. Signal phase time, which is now dedicated to clearing traffic through the Brockton Avenue portion of the intersection, would be reallocated to the simplified Magnolia/Central intersection, reducing total signal phase length, reducing vehicle queues, reducing vehicle delays and improving level of service.

**Alternative 2:** Alternative 2 is similar to Alternative 1 with the exception that the portion of Sunnyside Drive from Brockton to Magnolia would be two-way traffic flow, and the portion of Brockton north of Sunnyside to Beatty Drive would also be two way. This configuration would provide for enhanced access between Brockton and Magnolia north of Central Avenue via the two-way connection as compared to Alternative 1. Under this option, the proposed geometric configuration at Central Avenue and Magnolia Avenue would be the same as Alternative 1, and the expected improvements described above would be similar.

Analysis of the two alternatives indicates that with future traffic volumes, either alternative would yield an LOS of D during the A.M. peak hour and LOS F during the P.M. peak hour.

The poor level of service, even following proposed improvements, is partially attributable to the addition of traffic on the north side of the intersection from Brockton – without the mitigation of additional traffic lanes on Magnolia to handle the additional volumes. Traffic volumes on the north-south legs of the intersection simply exceed the capacity of the lanes.

This is a significant, adverse impact requiring mitigation.

### **Roadway Linkage Impacts**

The regional future model roadway network (the network outside of the City boundaries) used for this analysis includes the existing roadway system plus all planned and funded improvements embedded within the SCAG model. This includes projects included in the State Transportation Improvement Program (STIP). In addition, all City Capital Improvement Program (CIP) projects are included, as are roadway network improvements that are set forth in specific plans. Finally, all streets in the regional future model roadway network are assumed to be built out to their ultimate number of lanes.

### **Roadway Reclassifications**

The Project, and most prominently the proposed Circulation and Community Mobility Element, includes numerous policies, features and actions designed and intended to minimize traffic impacts throughout the Planning Area. These actions include intersection improvements, roadway widenings and connections, and a variety of traffic-related policies.

The General Plan Circulation and Community Mobility Element provides for long-term changes to the roadway system to accommodate future traffic volumes. For the most part, the roadway classifications will remain as they are currently shown in the General Plan. For example, the current and proposed Master Plan of Roadways show Alessandro Boulevard as a six-lane arterial, although it currently is constructed only to four lanes within the larger planned right-of-way. The proposed Master Plan of Roadways is shown on **Figure 5-39**. **Table 5.15-7** details proposed changes to the Master Circulation Plan.

These changes are recommended to allow the future roadway system to best accommodate future traffic volumes consistent with City LOS policy and policy to direct traffic to major roadways and away from residential neighborhoods. Notably, several of the roadway reclassifications will require construction or expansion of City roadways, all of which will be subject to regular CEQA review as specific improvement plans are developed. The environmental impacts of these improvements can not be anticipated in this document, as precise alignments, roadway segments that operate at LOS “E” or “F” conditions are considered deficient. The map in **Figure 5-40** shows the following segments are projected to operate at LOS “E” or “F” upon buildout of the proposed General Plan.

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Figure 5-39  
Master Plan of Roadways  
11x 17 color

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**Table 5.15-7  
Functional Classification Changes**

<b>Roadway Segment</b>	<b>From</b>	<b>To</b>	<b>Old Classification</b>	<b>New Classification</b>	<b>Comment</b>
Overlook Parkway	Alessandro	Washington	110-Foot Arterial (Scenic)	110-Foot Arterial (Scenic)	With two lanes and wide median parkway
Overlook Parkway	Washington	91 Freeway	None	110-Foot Arterial	Alignment to be determined in specific plan
Van Buren Boulevard	Orange Terrace	I-215	None	120-Foot Arterial (Scenic)	
Magnolia Avenue	Entire Segment		120-Foot Arterial	4-Lane Special Boulevard	Retain 6-lanes where they exist currently, all ROW per Magnolia Avenue Specific Plan
Merrill Avenue	Magnolia	Riverside	66-Foot Collector	88-Foot Arterial	
Palm Avenue	Arlington	Fourteenth	88-Foot Arterial	66-Foot Collector	
Marlborough	Chicago	I-215	66-Foot Collector	Local	
Sandy Lane	Arlington	End	66-Foot Collector	Local	
Jones Avenue	Arlington	End	66-Foot Collector	Local	
Sherman Drive	Magnolia	End	66-Foot Collector	Local	
Redwood Drive	Palm	Fourteenth	66-Foot Collector	Local	
Roberts Road	Harbart	Wood	66-Foot Collector	66-Foot Local	Continue to show on map
Fourteenth Street	Palm	Redwood	66-Foot Collector	Local	
Tequesquite Avenue	Palm	Redwood	66-Foot Collector	Local	

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Figure 5-40  
2025 Volume to Capacity Ratio  
11x 17 color

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Roadways projected to be at **LOS “E”** upon buildout of the proposed General Plan are:

- Portions of **Van Buren Boulevard** south of Cypress, south of Indiana, near Wood, and near the Trautwein intersection, as well as west of the I-215 interchange
- **Arlington Avenue** east of SR 91
- **Alessandro Boulevard** between Trautwein and I-215
- **Madison Street** north of SR 91

Roadways projected to be at **LOS “F”** upon buildout of the proposed General Plan are:

- Portions of **Van Buren Boulevard** north of Cypress, between Lincoln and Mockingbird Canyon, locations between Wood and Sycamore Canyon
- Portions of **La Sierra Avenue** from near SR 91 to Dufferin
- **Trautwein Road** between Alessandro and Van Buren
- **Alessandro Boulevard** from Central to Trautwein
- Portions of **Arlington Avenue** and **Chicago Avenue** near Alessandro
- Portions of **Martin Luther King Boulevard** between SR 91 and SR 60

The Circulation and Community Mobility Element makes the following statement regarding LOS:

The City will strive to maintain LOS D or better on arterial streets wherever possible. At some key locations, such as City arterial roadways which are used as a freeway bypass by regional through traffic and at heavily traveled freeway interchanges, LOS E may be acceptable as determined on a case-by-case basis. Locations that may warrant the LOS E standard include portions of Arlington Avenue/Alessandro Boulevard, Van Buren Boulevard throughout the City, portions of La Sierra Avenue and selected freeway interchanges.<sup>5</sup>

Taking the above policy statement into account, the portions of Van Buren Boulevard, Arlington Avenue and Alessandro Boulevard projected to operate at LOS “E” are considered acceptable. Therefore, at these locations impacts are less than significant and no mitigation is required.

However, the portion of Madison Street projected to operate at LOS E and all of the segments operating at LOS F are considered unacceptable. Along these segments, impacts are considered significant and mitigation is required.

## Freeway Future Level of Service

Analysis of Project traffic impacts included a review of future levels of service along freeway segments. Future freeway conditions plus Project conditions were calculated. **Table 5.15-8** indicates future ADT peak-hour traffic volumes and LOS for the same freeway segments analyzed and presented in Table 5.15-4.

<sup>5</sup> Proposed Circulation and Community Mobility Element, p. CCM-13.

**Table 5.15-8  
Future Freeway Level of Service**

<b>Segment</b>	<b>Existing ADT</b>	<b>Existing Peak Hour Volume</b>	<b>Existing LOS</b>	<b>Future ADT</b>	<b>Future LOS</b>	<b>Percentage of Future Trips Starting/Ending in Planning Area</b>
<b>State Route 91</b>						
Pierce St to Magnolia Ave	176,000	14,700	F	207,388	F	25%
Magnolia Ave to La Sierra Ave	178,000	14,900	F	212,021	F	26%
La Sierra Ave to Tyler St	178,000	14,900	F	201,994	F	33%
Tyler St to Van Buren Blvd	180,000	15,100	F	223,970	F	34%
Van Buren Blvd to Adams St	174,000	14,600	F	210,860	F	35%
Adams St to Madison St	176,000	14,700	F	207,363	F	34%
Madison St to Arlington Ave	176,000	14,300	F	210,496	F	36%
Arlington Ave to Central Ave	177,000	14,200	F	194,074	F	35%
Central Ave to 14th St	172,000	13,600	F	218,697	F	38%
14th St to University Ave	171,000	13,400	F	222,644	F	38%
University Ave to Mulberry St	162,000	12,600	F	211,011	F	36%
Mulberry St to La Cadena Dr	162,000	12,400	F	211,011	F	36%
La Cadena Dr to SR-60	160,000	12,400	E	211,011	F	36%
<b>I-215/SR 60</b>						
SR-60 to Spruce St	183,000	15,600	F	293,672	F	17%
Spruce St to 3rd St/Blaine St	171,000	14,700	F	293,672	F	17%
3rd St/Blaine St to University Ave	170,000	14,800	F	287,065	F	17%
University Ave to Martin Luther King Blvd	177,000	15,400	F	301,093	F	17%
Martin Luther King Blvd to El Cerrito Dr	181,000	16,300	F	308,012	F	16%
El Cerrito Dr to Central Ave	188,000	16,900	F	308,012	F	16%
Central Ave to Box Springs Rd	180,000	16,200	F	324,521	F	16%
Box Springs Rd to SR-60	110,000	8,900	C	322,302	F	16%
SR-60 to Eastridge Ave	112,000	9,000	E	185,017	F	12%
Eastridge Ave to Alessandro Blvd	106,000	9,000	E	197,972	F	18%
Alessandro Blvd to Frontage Rd	104,000	8,900	D	200,519	F	18%
Frontage Rd to Van Buren Blvd	105,000	9,000	D	202,308	F	16%

Table 5.15-8 shows that under existing conditions, nearly all freeway segments of SR-91 are operating at LOS F; a single segment operates at LOS E. When future regional traffic plus Project traffic is added, all segments of SR-91 will operate at LOS F.

Most portions of the I-215/SR-60 Freeway within the Planning Area operate at LOS F. South of the SR-60 split, conditions on I-215 improve somewhat to LOS C, D and E. When future regional traffic plus Project traffic is added, all segments of I-215 will operate at LOS F.

Analysis did not include an estimation of future freeway traffic without the Project. However, it is reasonable to assume that additional growth within the City is possible even without the Project as regional growth would continue.

Table 5.15-8 also shows the percentage of future trips within each segment that is estimated to have starting or ending points within the City of Riverside. As shown in the table, trips that start or end in the City of Riverside contribute from about 12 percent to 38 percent of future freeway trips. By extension, between 62 percent and 88 percent of future freeway trips will neither start nor end in the City of Riverside. Although the Project will incrementally increase freeway traffic, Table 5.15-8 illustrates that the great majority of future traffic on freeway segments within the Planning Area is originating and ending outside of the Planning Area. Nevertheless, this is considered a significant, adverse impact for which mitigation is required.

#### **Project Policies addressing Intersection, Roadway and Freeway Impacts**

In addition to the proposed physical improvements discussed and analyzed above, the Project also includes the following objectives and policies, the adherence to and implementation of which will lessen traffic impacts for Year 2025 conditions:

**Objective CCM-1: Facilitate freeway and regional roadway improvements and construction to alleviate congestion and air pollution and to minimize regional cut-through traffic within Riverside.**

Policy CCM-1.1: Support development of CETAP corridors, including the Mid County Parkway (formerly known as the Ramona Expressway/Cajalco Road Corridor) and the Two-County Corridor from Riverside to San Bernardino County.

Policy CCM-1.2: Support the addition of capacity improvements to SR-91, SR-60, I-215 and I-15.

Policy CCM-1.3: Support the development of a new regional roadway facility linking Riverside County with Orange County.

Policy CCM-1.4: Support improvement of the Van Buren Boulevard/I-215 interchange and along the length of Van Buren between I-215 and SR-91.

**Objective CCM-2: Build and maintain a transportation system which combines a mix of transportation modes and transportation system management techniques, and which is designed to meet the needs of Riverside's residents and businesses, while minimizing the transportation system's impacts on air quality, the environment and adjacent development.**

Policy CCM-2.1: Complete the Master Plan of Roadways shown on Figure CCM-4 (Master Plan of Roadways).

Policy CCM-2.2: Balance the need for free traffic flow with economic realities and environmental and aesthetic considerations, such that streets are designed to handle normal traffic flows with tolerances to allow for potential short term delays at peak flow hours.

Policy CCM-2.3: Maintain LOS D or better on Arterial Streets wherever possible. At key locations, such as City Arterials that are used by regional freeway bypass traffic and at heavily traveled freeway interchanges, allow LOS E at peak hours as the acceptable standard on a case-by-case basis.

Policy CCM-2.4: Minimize the occurrence of streets operating at LOS "F".

The policies listed above will lessen impacts directly related to the Project. Existing City standards and practices regarding traffic impacts will continue to be applied generally or to individual development proposals as appropriate. These standards and practices include:

- Implementation of CEQA during the site development review process of future projects. Analyze and mitigate potential impacts related to adopted level of service standards, alternative transportation provision, pedestrian and bicyclist safety, neighborhood intrusion, adequate parking provision, and railway, truck and airport operations to the maximum extent practicable.
- Require that proposals for major new developments include a traffic impact analysis that identifies measures to mitigate the traffic impacts from the new development, including cumulative impacts.
- Review current traffic volumes and the actual pattern of urban development to coordinate, design and modify planned road improvements as necessary to meet the projected travel needs of the community.
- Require new development to mitigate the traffic and circulation impacts it is creating in accordance with the transportation improvement needs described in this Circulation and Community Mobility Element.
- Schedule improvements to City streets in a manner that maximizes the levels of service on collector and arterial streets within the confines of available resources.



- Encourage the implementation of the Transportation Demand Management (TDM) measures contained in the SCAQMD and County of Riverside TDM Guidelines. These may include:
  - implementation of mandatory peak hour trip reduction requirements;
  - requirements for staggered work hours;
  - telecommunications;
  - increased development of employment centers where transit usage is highly viable;
  - encourage ride sharing in the public and private sector;
  - provide for park and ride facilities adjacent to the regional transportation system; and provide transit subsidies.

### Neighborhood Traffic Management

The Circulation and Community Mobility Element of the General Plan includes the following objective and policies related to the City's Neighborhood Traffic Management Program. Although these measures will reduce traffic on local streets, their implementation is likely to increase traffic on major arterials.

**Objective CCM-7: Minimize or eliminate cut-through traffic within Riverside's residential neighborhoods.**

- Policy CCM-7.1: Discourage and/or prevent regional cut-through traffic in residential neighborhoods through the employment of traffic calming measures within Riverside.
- Policy CCM-7.3: Discourage freeway access improvements that could facilitate further non-local traffic intrusion into community neighborhoods.
- Policy CCM-7.4: Limit local roadway improvements to those that are necessary to support proposed General Plan land uses.
- Policy CCM-7.5: Discourage improvements beyond those contained in the Circulation and Community Mobility Element to accommodate additional regional traffic.

Because the City's Neighborhood Traffic Management Program is necessary to protect local residential neighborhoods and streets from regional cut-through traffic, the City has developed the following objectives and policies to offset the Program's impact:

**Objective CCM-1: Facilitate freeway and regional roadway improvements and construction to alleviate congestion and air pollution and to minimize regional cut-through traffic within Riverside.**

- Policy CCM-1.1: Support development of CETAP corridors, including the Mid County Parkway (formerly known as the Ramona Expressway/Cajalco Road Corridor) and the Two-County Corridor from Riverside to San Bernardino County.

Policy CCM-1.2: Support the addition of capacity improvements to SR-91, SR-60, I-215 and I-15.

Policy CCM-1.3: Support the development of a new regional roadway facility linking Riverside County with Orange County.

Policy CCM-1.4: Support improvement of the Van Buren Boulevard/I-215 interchange and along the length of Van Buren between I-215 and SR-91.

**Objective CCM-6: Reduce peak hour trips, roadway congestion and air pollution.**

Policy CCM-6.1: Encourage the reduction of vehicle miles, reduce the total number of daily peak hour vehicular trips, increase the vehicle occupancy rate and provide better utilization of the circulation system through the development and implementation of TDM programs contained in the SCAQMD and County of Riverside TDM Guidelines.

Policy CCM-6.2: Encourage the use of telecommunications by Riverside residents, employees and students as a means to reduce air and noise pollution generated by traffic.

Policy CCM-7.2: Work with adjacent jurisdictions, the County and regional agencies to address the impacts of regional development patterns on the local circulation system.

The objectives and policies listed above will lessen impacts to neighbourhood traffic directly related to the Project. Existing City standards and practices regarding traffic impacts will continue to be applied generally or to individual development proposals as appropriate. These practices include:

- Implement traffic modification measures for local residential streets where reasonably warranted, including the following: one-way streets, street closures, speed bumps, raised medians, traffic circles, traffic striping and signing. Employ the above traffic measure only after public hearings by the Planning Commission and City Council and after making the following findings:
  - The measure will provide for the health and safety of the citizenry and will not substantially impair the rendering of emergency and public services;
  - The measures will not unreasonably interfere with general traffic circulation via the public rights-of-way designated as major and secondary streets in the Circulation Element of the General Plan;
  - There is sufficient evidence to indicate that one or more of these conditions exist:
  - An abnormally high percentage of traffic is unrelated to the local neighborhood and is merely passing through;
  - Street design or conditions permit excessive vehicular speeds;

- There is a separate street from the general neighborhood circulation pattern to preserve the unique character of adjacent properties, to encourage pedestrian, equestrian or non-motorized vehicular travel and/or to discourage crime, noise, air pollution, and other hazards to public safety and welfare;
  - In the case of street closure, a separate factual finding must be made that the street is no longer needed as contemplated by the California Vehicle Code Section 21101.
- 
- The measures will not unreasonably restrict access to adjacent properties nor impair the constitutionally guaranteed rights of any individual or group. Releases may be acquired as determined by the City Attorney.
  - The measures will not create an unacceptable internal circulation system characterized by any excessively long dead-end or cul-de-sac street, poor aesthetics, poor drainage, difficult maintenance requirements or poor street design geometry.
  - Work closely with other agencies on implementation of improvements along the Alameda Corridor East to facilitate east/west rail movements, and help to reduce regional truck traffic, while minimizing impacts on the City's roadway system. This will include new rail grade separations where appropriate, improvements to existing at-grade crossings and other improvements along the Corridor that will enhance both regional and local mobility.
  - Adherence to and implementation of the Project policies and continuation of existing City practices will mitigate neighborhood traffic impacts below a level of significance at the programmatic level. No mitigation is required.

Notably, the specific neighborhood traffic impacts of future new developments in the Planning Area cannot be determined at this programmatic level of analysis because no specific projects nor any locations are proposed. The City will require CEQA review at the project level to determine if specific Projects will have adverse neighborhood traffic impacts and recommend any specific mitigation measures.

### **Regional Transportation Plans**

Traffic analysis herein has been conducted using a travel demand model that is based upon SCAG's regional model. As such, the model is consistent with the SCAG model and incorporates all of the regional model data and projects on the regional system within and outside of the City. This assures consistency with the Regional Transportation Plan, the Regional Transportation Improvement Program (RTIP) and the SCAG/CTP model. Also, the Congestion Management Program (CMP) requires that local models follow SCAG consistency guidelines to assure compliance with the CMP, which the City of Riverside model has followed. With respect to the TUMF, the traffic model network has incorporated all future proposed TUMF roadway improvements and is therefore consistent with that program.

Additional regional projects in the concept planning stage include an east/west expressway/freeway corridor linking Riverside and Orange County, a potential MAGLEV rail project running east/west through the City, a goods movement corridor improvement

project on the Burlington Northern Santa Fe (BNSF) rail line, and other projects that are not funded at this time. Also, the Regional Transportation Plan includes a list of “unconstrained” projects for which funding is not identified, which provide an indication of the possible future projects that may be considered in subsequent RTP updates.

While the Circulation and Community Mobility Element and the modeling associated with this traffic analysis do not specifically include regional projects on the unconstrained list, nor do they include conceptual projects, the Element’s objectives and policies recommend that the City support development of regional improvements and participate in projects to mitigate regional traffic congestion. In this way, the Circulation and Community Mobility Element is fully consistent with the regional funded projects lists, and also with the intent of regional plans that seek to improve subregional and regional transportation.

The General Plan includes the following objective and policies related to regional transportation planning and cooperation, the adherence to which will reduce traffic impacts:

**Objective CCM-5: Cooperate in the implementation of regional and inter-jurisdictional transportation plans and improvements to the regional transportation system.**

Policy CCM-5.1: Coordinate impacts of new roadway connections with adjacent cities and Riverside County to ensure consistency in design and operations of the new facilities and connections.

Policy CCM-5.2: Support implementation of the SCAG Regional Transportation Plan.

Policy CCM-5.4: Actively participate with other jurisdictions and agencies such as the County, RCTC, RTA, SCAG, WRCOG and CALTRANS to facilitate regionally integrated transportation networks.

Policy CCM-5.5: Participate in programs to mitigate regional traffic congestion.

Policy CCM-5.6: Integrate signal systems with adjacent jurisdictions and Caltrans.

Policy CCM-5.7: Work with Riverside County and as a member of the March Joint Powers Authority to ensure adequate circulation with the JPA jurisdictional area and around Riverside National Cemetery.

The policies listed above will lessen impacts directly related to the Project. Existing City standards and practices regarding traffic impacts will continue to be applied generally or to individual development proposals as appropriate. In addition, regardless of whether the Project is adopted, the City will coordinate with regional transportation agencies in the planning and development of major regional facilities. These practices and coordination efforts include:

- Implement and maintain traffic signal coordination and advanced traffic management strategies throughout the City to the maximum extent practicable and integrate signal systems with adjacent jurisdictions and Caltrans.

- Review development proposals for compliance with the Riverside County Congestion Management Plan.
- Continue to work with the State Department of Transportation and SCAG to monitor and report traffic counts throughout the City. These counts should be used to help monitor the levels of service of various roadways and to schedule roadway improvements.
- Work closely with the State to ensure that State roads are designed and built to accommodate demands.
- Coordinate with the California Department of Transportation (Caltrans), Riverside County Transportation Commission (RCTC), and the Federal Highway Administration (FHWA) as appropriate to ensure timely completion of the 60/91/215 interchange improvement project.

In addition to the objectives and policies, City standards and practices, and coordination efforts cited above, other General Plan elements also support City efforts to reduce impacts to the roadway transportation system. In particular, the Land Use and Urban Design Element contains objectives and policies supportive of “smart growth” measures that will direct population growth to already urbanized areas, reducing the demand for new transportation facilities at the urban periphery and increasing in-town densities to levels at which public transportation can more efficiently and effectively operate. The Land Use and Urban Design Element also designates areas around the City of Riverside’s Metrolink stations for higher density mixed-use development, enabling the City to provide housing opportunities within the City in a manner that will allow for greater travel flexibility of eventual occupants.

## **Conclusion**

Adherence to and implementation of the Project policies and continuation of existing City practices will ensure ongoing coordination with regional agencies, resulting in less than significant impacts with regard to consistency with regional transportation plans. Specific development proposals under the Project will continue to be reviewed under CEQA for potential conflicts with regional transportation plans. No mitigation is required.

## **Air Traffic Impacts**

Riverside's airports and their environs are seen as important components of the City's long-term economic development strategy. The General Plan includes the following objectives and policies:

**Objective CCM-11: Promote improved air transportation for Riverside in a manner that benefits the City.**

Policy CCM-11.3: Ensure that Riverside Municipal Airport continues to serve general aviation needs.

Policy CCM-11.4: Support continued development of MARB/MIP.

The risk of aircraft crashes is an important consideration in planning around airports, especially given the fact that implementation of the Project will facilitate expansion of airport operations within an urban setting. In tandem with any aviation operation, "crash" zones for airports are a major safety issue. **Figure 5-41** shows the aircraft crash hazard zone for Riverside Municipal Airport and March ARB. (Flabob Airport zones do not extend into the Planning Area.) These zones establish areas where the risk of a crash for a certain area of land is greater in each successive impact zone. Even though the March ARB is not located within the City of Riverside, flight patterns shown on Figure PS-5 in the Public Safety Element impact the neighborhoods of Orangecrest, Mission Grove, and Sycamore Canyon/Canyon Springs.

The Land Use Policy Map (Figure LU-9 in the Land Use and Urban Design Element) has been developed to avoid placing intensive new uses with the airport-influenced areas. These policies are supplemented by zoning regulations. Development controls include limiting development within areas subject to high noise levels and limiting the intensity and height of development within aircraft hazard zones.

With regard to March ARB, the Air Installation Compatible Use Zone (AICUZ) Study performed by the United States Air Force designates a Clear Zone and two Accident Potential Zones (APZs) based on landing thresholds for each runway at the base. These zones are three thousand feet in width and extend from the runway along the extended runway centerline, as shown in **Figure 5-41**. The AICUZ program provides recommendations for compatible uses within each zone. Within the APZs, a variety of uses are compatible; however, people-intensive uses should be restricted because of the risk of aircraft accidents in these areas.

**Figure 5-41**  
**Airport Safety Zones**  
**11x17**

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The General Plan includes the following objectives and policies, the adherence to which will reduce air traffic-related hazards:

**Objective CCM-11: Promote improved air transportation for Riverside in a manner that benefits the City.**

Policy CCM-11.1: Protect flight paths from encroachment by inappropriate development.

Policy CCM-11.2: Limit building heights and land use intensities beneath airport approach and departure paths to protect public safety consistent with approved plans and applicable regulations.

Policy CCM-11.7: Ensure environmental impacts such as noise, air quality, pollution, traffic congestion and public safety hazards associated with continued operation of local airports are mitigated to the extent practicable.

**Objective PS-4: Protect the community from hazards related to air and ground transportation.**

Policy PS-4.1: Minimize the risk of potential hazards associated with aircraft operations at the Riverside Municipal Airport and March Air Reserve Base/March Inland Port and Flabob Airport.

Policy PS-4.2: Plan for future airport operations, considering possible expansion of airport operations, services and adjacent land uses.

Policy PS-4.3: Encourage development in the vicinity of the Riverside Municipal Airport that would not cause land use conflicts, hazards to aviation or hazards to the public and that is in compliance with the Draft Riverside County Airport Land Use Compatibility Plan for the airport.

Policy PS-4.4: Maintain open space adjoining the Riverside Municipal Airport, March Air Reserve Base/March Inland Port and Flabob Airport as required for safety for both the present runway configurations and for possible future expansion.

Policy PS-4.5: Review the Riverside Municipal Airport Master Plan periodically to update operational and safety procedures, reflect State and Federal mandates, better utilize airport property and recommend land use capability standards for land surrounding the airport.

Policy PS-4.6: Ensure that development within airport influence areas is consistent with the Airport Protection Overlay Zone development standards.

Policy PS-4.7: Ensure that compatible land uses near March Air Reserve Base/March Inland Port through participation of staff and elected officials in the adoption of the March Joint Land Use Study and the Riverside County Airport Land Use Compatibility Plan.

The policies listed above will significantly lessen impacts directly related to the Project. Existing City standards and practices regarding air traffic impacts will continue to be applied generally or to individual development proposals as appropriate. These standards and practices include:

Refer all proposed General Plan amendments, Specific Plans, Zoning Ordinance revisions, Building Code amendments, and future development proposals within the Comprehensive Airport Land Use Plan to the Airport Land Use Commission for review as required by State law.

Implement CEQA during the site development review process of future projects. Analyze and mitigate potential impacts related to adopted level of service standards, alternative transportation provision, pedestrian and bicyclist safety, neighborhood intrusion, adequate parking provision, and railway, truck and airport operations to the maximum extent practicable.

As one means of carrying out the airport related objectives and policies discussed above, the Zoning Code update includes a new overlay zone to protect public safety and reduce potential conflicts with air facility operations. Airport Influence Overlay Zone (AI) which applies to properties within the airport safety zones identified in the Riverside County CLUP for all airports, except MARB, in the county. The AI overlay zone restricts uses of properties, building heights and air/electronic emissions within the safety zones. In practice, the overlay zone will be applied to any underlying base zoning district. Application of the AI overlay zone will reduce risks relative to airport operations.<sup>6</sup>

The AI Overlay Zone should be distinguished from the Airport Zone (AIR), which is a fixed zoning district established in recognition of the importance of airport and aviation-related uses to the City's economy and allows for uses compatible with or convenient for airport operations. The AI Zone will be applied on top of base zoning designations anywhere in the City where airport operations present a need for protective measures; the AIR zone is a base zoning designation that will be applied in the area around the airport, establishing uses complementary to airport operations.

## Conclusion

Development consistent with Project implementation will facilitate new growth in the Planning Area that will generate demand for additional air traffic but also potentially create restrictions to safe airport operations. Project implementation, including the objectives and policies within the proposed General Plan and the institution of the AI overlay designation as part of the Zoning Code update, will reduce Project impacts to air travel to less than

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<sup>6</sup> As noted above, Flabob Airport safety zones do not extend into the Planning Area, so there is no application of the AI overlay relative to Flabob operations. Noise impacts from Flabob Airport do, however, impact the Planning Area; see Section 5.10, Noise, for information and analysis.

significant at the programmatic level. Future individual development projects will be assessed as per CEQA requirements to determine the presence of significant impacts related to air travel facilities and operations. No mitigation is required.

## Roadway Hazard Impacts

As population within the Planning Area increases with implementation of the Project over time, the number of vehicles on local roadways will increase with potential to conflict with trains, pedestrians, or bicyclists. This is especially true near existing or planned schools and where roadways traverse railways at-grade.

The General Plan includes the following objectives and policies to reduce roadway hazards:

**Objective CCM-2: Build and maintain a transportation system that combines a mix of transportation modes and transportation system management techniques, and that is designed to meet the needs of Riverside’s residents and businesses, while minimizing the transportation system’s impacts on air quality, the environment and adjacent development.**

Policy CCM-2.5: Review and update street standards as necessary to current capacity and safety practices.

**Objective CCM-8: Protect neighborhoods and reduce the risk posed to young children and other residents by vehicular traffic on local roadways.**

Policy CCM-8.1: Work with local school districts to identify safe routes to all schools, enabling better school access by cyclists and pedestrians. Support the establishment of safe drop-off and pick-up zones around schools during the morning and afternoon peak hours.

Policy CCM-8.2: Promote walking as a safe mode of travel for children attending local schools.

Policy CCM-8.3: Apply creative traffic management approaches to address congestion in areas with unique problems, particularly on roadways and intersections in the vicinity of schools in the morning and afternoon peak hours and near churches, parks and community centers.

**Objective CCM-12: Facilitate goods movement as a means of economic expansion, while protecting residents and visitors from the negative effects typically associated with truck operations and rail service.**

Policy CCM-12.5: Work with the railroads and State and Federal agencies to minimize the adverse safety and congestion impacts of at-grade rail line crossings of major streets.

**Objective PS-4: Protect the community from hazards related to air and ground transportation.**

Policy PS-4.8: Pursue grade-separated rail crossings as the first level priority for reducing street/rail conflicts.

Policy PS-4.9: Minimize the potential for accidents involving railways, automobiles, pedestrians and cyclists by working closely with the Riverside Police Department, RTA, California Highway Patrol and all applicable railroad companies to identify safety problems and implement corrective measures.

Policy PS-4.10: Use technology to improve safety at grade crossings that cause the least environmental harm (e.g., automated horn systems).

Policy PS-4.11: Continue proactive programs aimed at improving drivers' behavior.

Policy PS-4.12: Implement roadway improvements identified in the Circulation and Community Mobility Element intended to improve roadway safety.

**Objective PS-5: Provide safe pedestrian and bicyclist environments citywide.**

Policy PS-5.1: Enhance and maintain pedestrian safety through the inclusion of well-designed streets, sidewalks, crosswalks, traffic control devices and school routes throughout the City. Reasonable means of pedestrian accessibility shall be an important consideration in the approval of new development.

Policy PS-5.2: Develop objectives and detailed standards and guidelines for the treatment of public streetscapes to improve safety and walkability. Recommendations should address street trees, street lighting, street furniture, traffic calming and other pertinent issues. Establish funding sources and priorities and set forth a phased improvement program.

Policy PS-5.3: Prioritize locations for potential pedestrian safety enhancements, including modified signage, lighted crosswalks and other similar facilities.

Policy PS-5.4: Require that new development provide adequate safety lighting in pedestrian areas and parking lots.

Policy PS-5.5: Implement pedestrian and bicycle safety measures in any new grade separation project.

Adherence to and implementation of the objectives and policies listed above will significantly lessen impacts directly related to the Project. Existing City standards and practices regarding reduction of roadway hazards will continue to be applied generally or to individual development proposals as appropriate, regardless of whether the Project is adopted. In addition, regardless of whether the Project is adopted, the City will coordinate with regional transportation agencies in the planning and development of major regional facilities. These efforts, standards and practices include:

- Implement CEQA during the site development review process of future projects. Analyze and mitigate potential impacts related to adopted level of service standards, alternative transportation provision, pedestrian and bicyclist safety, neighborhood intrusion, adequate parking provision, and railway, truck and airport operations to the maximum extent practicable
- Monitor traffic conditions at rail grade crossings and support improvements when warranted.
- Work closely with other agencies on implementation of improvements along the Alameda Corridor East to facilitate east/west rail movements, and help to reduce regional truck traffic, while minimizing impacts on the City's roadway system. This will include new rail grade separations where appropriate, improvements to existing at-grade crossings and other improvements along the Corridor that will enhance both regional and local mobility.
- Coordinate with RTA and commercial railway operators in identifying and prioritizing grade separation projects to avoid rail conflicts with vehicles, bicyclists, and pedestrians.

## **Conclusion**

Development consistent with Project implementation will facilitate new growth in the Planning Area that will generate additional roadway and rail traffic that has the potential to increase travel related safety hazards.

Project implementation, including the objectives and policies within the proposed General Plan and the institution of the AI overlay designation as part of the Zoning Code update, will reduce the Project's adverse impacts on roadway safety to less than significant at the programmatic level. Future individual development projects will be assessed as per CEQA requirements to determine whether they create or contribute to adverse impacts to roadway safety. No mitigation is required.

## Parking Capacity Impacts

Project implementation will focus new development within the City's existing urbanized areas. As portions of the City are developed with greater density and intensity, inherently, the demand for parking will be the most acute within City's downtown. However, requiring the provision of new parking facilities based on the application of a strict standard (e.g. so many spaces per dwelling unit or square feet of building floor area) is not always the most efficient or desirable answer. Peak-hour parking demand varies by use. For example, the demand for office parking and local serving commercial uses tends to be greatest during the daytime hours, while cinema and cultural activities or events tend to require the greatest amount of parking during the evening hours. Parking can also be regulated during certain hours so as to permit on-street parking during off-peak traffic hours, while restricting on-street parking during peak hours to facilitate traffic flow.

The General Plan provides three new mixed-use designations in which a mix of land uses at high intensity are planned within proximity to major activity centers and adjacent to transit facilities. Within these areas, shared parking arrangements work best. In addition, keeping parking tight but workable in certain City districts can also complement City objectives to promote transit ridership, which can reduce traffic congestion and improve air quality.

The General Plan includes the following objective and policies related to parking, the adherence to which will ensure adequate parking is provided concurrent with new development:

**Objective CCM-13: Ensure adequate on- and off-street parking is provided throughout Riverside.**

- Policy CCM-13.1: Ensure that new development provides adequate parking.
- Policy CCM-13.2: Accommodate joint use of parking facilities as part of an area plan or site plan, based on the peak parking demands of permitted uses in the planning area.
- Policy CCM-13.3: Work with developers to provide additional parking to mitigate area-wide parking shortages whenever feasible.
- Policy CCM-13.4: Encourage the use of shared parking arrangements in areas where parking shortfalls exist, including in Downtown, for mixed-use projects and along the Market/Magnolia corridor.

As part of the City's efforts to update the Zone Code update, the City comprehensively examined all existing parking requirements against local experience and best practices. The Draft Zone Code's parking requirements reflect significant refinement for numerous land uses. In almost all cases, the Draft Zone Code reflects increases in off-street parking requirements, which will minimize parking impacts. Of particular import, single-family and duplex dwelling unit requirements are proposed to increase from one carport space to two fully enclosed spaces. In addition, the Draft Zone Code includes parking requirements for land uses that were not addressed nor contemplated in the existing Zoning Code.

Adherence to and implementation of the Project features discussed above will significantly lessen impacts directly related to the Project. Existing City standards and practices regarding parking capacity will continue to be applied generally or to individual development proposals as appropriate, regardless of whether the Project is adopted. These standards and practices include:

- Implement CEQA during the site development review process of future projects. Analyze and mitigate potential impacts related to adopted level of service standards, alternative transportation provision, pedestrian and bicyclist safety, neighborhood intrusion, adequate parking provision, and railway, truck and airport operations to the maximum extent practicable.
- Prohibit parking on key collector and arterial streets during peak commuter hours. Parking should be prohibited at all times if it interferes with the level of service of the street, however parking needs of adjacent businesses and residents must be considered.
- Review Municipal Code Parking requirements, relative to actual parking demands and parking management needs, and revise code as necessary to ensure adequate parking supply in manner which reinforces demand management programs.

## Conclusion

Development consistent with Project implementation will facilitate new growth in the area that will generate additional parking demand. Project implementation will include requirements that such development provide adequate parking facilities. Future individual development projects will be assessed as per CEQA requirements to determine the presence of any significant impacts to parking facilities. This will reduce impacts to parking to less than significant at the programmatic level. No mitigation is required.

## Emergency Access Impacts

To protect public health and safety, the City will continue to apply Section 16.32.020 of the Riverside Municipal Code, which establishes site planning and design standards to ensure adequate emergency access to new developments. In addition, as described in the subsection "Parking" above, the City will continue to review development projects as they are proposed to ensure adequate off-street parking is provided and emergency access lanes are not blocked.

The General Plan includes the following objective and policies that will reduce impacts related to emergency access:

**Objective PS-10:     Improve the community's ability to respond effectively to emergencies.**

Policy PS-10.4:     Continue to ensure that each development or neighborhood in the City has adequate emergency ingress and egress, and review neighborhood access needs to solve problems, if possible.

- Policy PS-6.7: Continue to involve the City Fire Department in the review development process.
- Policy PS-6.10: Identify noncontiguous streets and other barriers to rapid response and pursue measures to eliminate the barriers.

Adherence to and implementation of the objective and policies listed above will significantly lessen impacts directly related to the Project. Existing City standards and practices regarding emergency access provision will continue to be applied generally or to individual development proposals as appropriate, regardless of whether the Project is adopted. These standards and practices include:

- Implement CEQA to assess potential public safety impacts associated with new development. Evaluate potential impacts related to seismic hazards, flooding hazards, hazardous materials, ground and air transportation hazards, fire hazards, crime activity, and emergency preparedness.
- Continue to review and adopt as appropriate the latest Uniform Fire Code as amended by the State Fire Marshal.

## Conclusion

Development consistent with Project implementation will facilitate new growth in the area that will generate additional traffic that could impede emergency access. Project implementation will set in motion objectives and policies identified above that will continue to remove emergency access impediments as they are identified. Further, future individual development projects will be assessed as per CEQA requirements to determine the presence of any significant impacts to emergency access. This will reduce emergency access impacts to less than significant at the programmatic level. No mitigation is required.

## Alternative Transportation Impacts

The proposed Metrolink Perris Valley line will include four stops between the City of Perris and Riverside, including one near the University of California, Riverside and another near Blaine Street. This General Plan proposes that an area near the future Blaine Street station serve as a higher-intensity transit oriented development.

As listed below, the General Plan also includes policies promoting Bus Rapid Transit, a High Speed Train stop, and expansion of the RTA transit system.

One of the key components of the Circulation Plan is to promote the use of alternative modes such as bicycling, walking and equestrian riding. A comprehensive trails system to link residential areas, schools, parks and commercial centers so that residents can travel within the community without driving is the primary goal of the City's trails system.

Bicycling as a transportation mode can play an increasingly significant role as an alternative to the single-occupant automobile. The City's Bicycle Master Plan that designates a series of Class I and Class II bicycle facilities throughout the City. The plan is shown on **Figure 5-42**. Class I bikeways provide a completely separated right-of-way designated for the exclusive



**Figure 5-42**  
**Bicycle and Pedestrian Facilities**  
**11x17 color**

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use of bicycles and pedestrians. Class II bikeways provide a restricted right-of-way on a roadway's shoulder designated for the exclusive or semi-exclusive use of bicycles. The City will continue to update the Riverside Bicycle Master Plan as appropriate to provide for adequate bicycle facilities throughout the planning area.

Enhanced local bicycle and pedestrian linkages are anticipated to occur throughout build out of the General Plan. New development projects will be required to include safe and attractive sidewalks, walkways and bike lanes and developers of residential and nonresidential projects will be encouraged to construct links adjacent to areas and communities where appropriate.

The following objectives and policies are included within the General Plan. Adherence to these policies will reduce impacts related to alternative transportation.

**Objective CCM-10: Provide an extensive and regionally linked public bicycle, pedestrian and equestrian trails system.**

- |                  |  |
|------------------|--|
| Policy CCM-10.1: | Ensure the provision of bicycle facilities consistent with the Bicycle Master Plan.  |
| Policy CCM-10.2: | Incorporate bicycle and pedestrian trails and bicycle racks in future development projects.  |
| Policy CCM-10.3: | Provide properly designed pedestrian facilities for the disabled and elderly population to ensure their safety and enhanced mobility.              |
| Policy CCM-10.4: | Identify and seek to eliminate hazards to safe, efficient bicycle or pedestrian movement Citywide.   |
| Policy CCM-10.5: | Promote the health benefits of using a bicycle or walking as a means of transportation.  |
| Policy CCM-10.6: | Encourage pedestrian travel through the creation of sidewalks and street crossings.  |
| Policy CCM-10.7: | Maintain an extensive trails network that supports bicycles, pedestrians and horses and is linked to the trails systems of adjacent jurisdictions. |
| Policy CCM-10.8: | Maximize links between trails and major activity centers, residential neighborhoods, schools, shopping centers and employment centers.             |
| Policy CCM-10.9: | Provide adequate connections between elements of Riverside Park.   |

Policy CCM-10.10: Evaluate the needs of bicycle traffic in the planning, design, construction and operation of all roadway projects funded by the City.

Policy CCM-10.11: Provide sufficient paved surface width to enable bicycle traffic to share the road with motor vehicles where traffic volumes and conditions warrant.

Policy CCM-10.12: Encourage bicycling as a commute mode to school, work, etc.

**Objective CCM-9: Promote and support an efficient public and multi-modal transportation network that connects activity centers in Riverside to each other and the region.**

Policy CCM-9.2: Support implementation of RTA's Bus Rapid Transit Program and recommendations of the Go Riverside Task Force.

Policy CCM-9.3: Explore the feasibility of light rail/monorail within the City.

Policy CCM-9.4: Support efforts by the California High Speed Rail Authority to bring high-speed trains to California and Riverside.

Policy CCM-9.5: Incorporate facilities for transit and other alternative modes of transportation, such as park-and-ride lots and bus turnouts, in the design of future developments.

Policy CCM-9.6: Enhance and encourage the provision of attractive and appropriate transit amenities, including shaded bus stops, to facilitate use of public transportation.

Policy CCM-9.7: Ensure adequate connections between all alternative modes.

Policy CCM-9.8: Preserve options for future transit use where appropriate when designing improvements for roadways.

Adherence to and implementation of the objective and policies listed above will significantly lessen impacts directly related to the Project. Existing City standards and practices regarding alternative transportation provision and impacts thereto will continue to be applied generally or to individual development proposals as appropriate, regardless of whether the Project is adopted. In addition, regardless of whether the Project is adopted, the City will coordinate with regional transportation agencies in the planning and development of regional transit facilities. These efforts, standards and practices include:

Implement CEQA during the site development review process of future projects. Analyze and mitigate potential impacts related to adopted level of service standards, alternative transportation provision, pedestrian and bicyclist safety, neighborhood intrusion, adequate parking provision, and railway, truck and airport operations to the maximum extent practicable.

- Work with the Riverside Transit Agency (RTA) to improve transit service and encourage ridership through the following actions:
  - Consider requiring transit facilities in major new development and rehabilitation projects;
  - Encourage RTA to modify the existing transit service (such as more stops and decreasing the interval between buses) to encourage increased ridership;
  - Coordinate with RTA to expand transit routes to employment, shopping, educational, recreational, and residential areas;
  - Work with RTA to provide special transit services to meet community needs;
  - Work with RTA to identify and receive additional funding sources for additional transit services;
  - Work with the Riverside Transit Authority to enhance services for the elderly, low income groups, the handicapped and disadvantaged. Seek to expand services to new areas as potential ridership increases.
- Coordinate with mass transit providers throughout the region to provide linkages between mass transit systems.
- Work with the Riverside County Transportation Commission to pursue the use of commuter or light rail for intra- and inter-County public transportation. This system should be integrated with existing bus systems and have stations located near major employment centers.
- Coordinate with the Riverside County Transportation Commission to support the needs for and promote the use of mass transit in Riverside. The City should serve as a liaison to coordinate bus routes with public service agency sites.
- At such time as a right-of-way is identified for potential abandonment, the City should review it for possible usage as a linkage for recreation or bicycle uses.
- Increase joint planning efforts between the City's Planning and Development Departments and the Riverside Transit Agency (RTA) to coordinate the location of future Bus Rapid Transit stops with supporting transit-oriented development projects and major pedestrian nodes where appropriate throughout the Planning Area.

## Conclusion

Development consistent with Project implementation will facilitate new growth in the area that will generate additional demand for alternative transportation as well as additional traffic that could hinder the movement of alternative transportation. Project implementation will set in motion policies identified above that will promote, encourage and otherwise facilitate wider use of alternative transportation modes. Further, future individual development projects will be assessed as per CEQA requirements to determine the presence of any significant impacts to alternative transportation. This will reduce alternative transportation impacts to less than significant at the programmatic level.

## Mitigation Measures

The Environmental Impact analysis section concludes that potentially significant environmental impacts will occur at selected intersections and along certain roadway segments and freeway segments. No potentially significant environmental impacts will result with regard to regional transportation plans, air traffic, roadway hazards, parking capacity, emergency access and alternative transportation.

The following paragraphs discussion potential mitigation measures for identified potentially significant impacts.

### Intersections

Development consistent with Project implementation will facilitate new growth in the Planning Area that will generate additional roadway traffic. Analysis has shown that 5 intersections will operate at an unacceptable LOS upon Project buildout if they are not improved. However, proposed intersection improvements that are part of the Project will ensure that these intersections will operate at acceptable levels of service. No further mitigation is necessary for these intersections.

However, the Magnolia/Central/Brockton intersection, even under the two discussed reconfiguration alternatives, will operate at an unacceptable level of service during afternoon peak hours. This intersection would operate at an acceptable level if an additional through lane could be added to Magnolia Avenue; however, such an additional lane is not a feasible mitigation measure given the lack of right-of-way in the area. Therefore, the impact to the Magnolia/Central/Brockton intersection is considered significant and unavoidable.

### Roadway Linkages

Development consistent with Project implementation will facilitate new growth in the Planning Area that will generate additional roadway traffic. Analysis shows that several roadway linkages are projected to operate at LOS E or F at Project buildout. This analysis assumed a series of roadway widenings, intersection improvements and other measures deemed reasonably foreseeable. Even with all of these improvements, several roadway linkages will operate at unacceptable levels at Project buildout. To address impacts to these roadway linkages, the following mitigation measure is required:

- T-1 The City will monitor traffic levels along roadway linkages projected to operate at unacceptable levels at Project buildout. As level of service measurements appear poised to be worse than LOS "D", the City will identify any potential additional intersection and roadway improvements that would improve localized LOS, implementing all such improvement deemed feasible.

## Freeways

Development consistent with Project implementation will facilitate new growth in the Planning Area that can be expected to generate additional traffic on regional freeways. Analysis indicates that under Project buildout conditions, all freeway segments in the Planning Area will operate at LOS F. Although analysis indicates that the freeway traffic attributable to Project buildout accounts for about one-third or less of freeway traffic increases, the impacts are nevertheless considered significant and unavoidable. As freeways are under the jurisdiction of Caltrans, the City has no authority to make improvements that could potentially lessen the impacts of Project-related traffic. As regional traffic (trips that neither begin nor end in the City of Riverside) constitutes a significant component of projected freeway traffic, it is unlikely that even a complete development moratorium in the City of Riverside could lead to acceptable levels of service on Riverside's freeway segments. Indeed, such a moratorium would likely have the impact of pushing new development farther north, east and south of the City, with little if any tangible improvement to freeway operations.

## Level of Impact after Mitigation

Mitigation Measure T-1 will help identify potential roadway linkage impacts over the course of Project buildout. Due to the uncertain nature of which roadways will actually need improvements and what if any improvements can feasibly mitigate unacceptable conditions, the Mitigation Measure will not reduce potential impacts below a level of significance. Identified roadway segment impacts are thus considered significant and unavoidable.

As no mitigation is available for the Magnolia/Central/Brockton intersection nor for the freeway segment impacts, impacts are significant and unavoidable.

## References

Transportation Research Board. 2000. *Highway Capacity Manual*.

Meyer, Mohaddes, Associates, Inc. 2004. Circulation Element EIR Transportation Study, City of Riverside.